

In the Claims:

Please cancel claims 1-154 without prejudice or disclaimer.

Please add the following new claims:

155. An isolated antigen-binding fragment comprising a polypeptide domain that specifically binds a BDCA-2 protein encoded by SEQ ID NO:1,
wherein said BDCA-2 protein is encoded by exons 1-6; exons 1 and 3-6; exons 1-2 and 4-6; or exons 1-3 and 5-6 of SEQ ID NO:1.

156. The antigen-binding fragment of claim 155 that is a monoclonal antibody comprising two heavy and two light chains.

157. The antigen-binding fragment of claim 156 wherein the antibody is human, murine, humanized or a bispecific antibody.

158. The antigen-binding fragment of claim 155 that is a Fab, F(ab')₂, scFv, or fusion polypeptide, or is encoded by a phage display library.

159. The antigen-binding fragment of claim 155 wherein the BDCA-2 protein is glycosylated.

160. The antigen-binding fragment of claim 155 that is
(a) a monoclonal antibody designated AC144 and produced by the hybridoma deposited as ATCC No. ____;
(b) a monoclonal antibody designated AD5-13A11 and produced by the hybridoma deposited as ATCC No. ____;
(c) a monoclonal antibody designated AD5-4B8 and produced by the hybridoma deposited as ATCC No. ____;
or comprises a BDCA-2 protein-binding fragment of (a), (b) or (c).

C1 ~~161.~~ The antigen-binding fragment of any of claims 155-160 that is conjugated to a chemically functional moiety.

162. The antigen-binding fragment of claim 161 wherein the chemically functional moiety is selected from the group consisting of a radioisotope, fluorescent compound, chemiluminescent compound, bioluminescent compound, enzyme, and a paramagnetic label.

C2 ~~163.~~ The antigen-binding fragment of any of claims 155-160 that is bound to a BDCA-2 protein.

B/cont 164. An antigen-binding fragment of any of claims 155-160 that is bound to a cell that expresses a BDCA-2 protein.

165. The antigen-binding fragment of claim 164 wherein the cell is a dendritic cell.

166. The antigen-binding fragment of claim 165 wherein the dendritic cell is BDCA-4⁺.

167. The antigen-binding fragment of claim 166 wherein the dendritic cell is human.

168. The antigen-binding fragment of claim 165 wherein an anti-BDCA-4 antibody is also bound to the dendritic cell.

169. A composition comprising the antigen-binding fragment of claim 155 composition and a pharmaceutically acceptable excipient.

170. An isolated cell that produces an antigen-binding fragment of claim 155.

171. A hybridoma that produces an antigen-binding fragment of claim 156.

172. A method for preparing a population of cells enriched for BDCA-2⁺ cells, comprising contacting a mixture of human cells with an antigen-binding fragment of claim 155 and isolating cells to which the antigen-binding fragment binds.

173. A method of detecting BDCA-2 protein in a biological sample comprising (a) contacting the BDCA-2 protein with the antigen-binding fragment thereof of claim 155 under conditions that permit formation of a complex between the BDCA-2 protein and the antigen-binding fragment; and (b) detecting the formation of the complex.

174. The method of claim 173 wherein the BDCA-2 protein is displayed on the surface of a dendritic cell.

175. The method of claim 174 wherein the step of detecting the formation of the complex comprises detecting at least one metabolic change in the dendritic cell.

176. The method of claim 175 wherein the metabolic change is down-regulation of type I interferon production, down-regulation of Th1 immune responses, induction of intracellular Ca²⁺ mobilization, or polarization of an immune response to Th2.

177. A method of ligating BDCA-2 antigen on a dendritic cell comprising contacting the cell with the antigen-binding fragment of claim 155.

178. A method of screening for agents that interfere with ligation of BDCA-2, said method comprising contacting a BDCA-2 protein and an antigen-binding fragment of claim 155 in the presence of a test agent and determining whether the test agent reduces binding of the antigen-binding fragment to the protein.

B / concluded

179. A kit comprising an antigen-binding fragment of claim 155 and a component selected from the group consisting of: BDCA-2 protein, a buffer, and a label conjugated to, or that can be conjugated to, the antigen-binding fragment.
